

REMARKS

The application includes claims 31-60 prior to entering this amendment.

The Applicant amends claims 31-41, 43-53, and 55-60, and cancels claims 42 and 54 without prejudice.

Claims 1-30 were previously cancelled.

The Applicant adds claims 61 and 62. No new matter is added.

The application remains with claims 31-41, 43-53, and 55-62 after entering this amendment.

Allowable Subject Matter

The Examiner objected to claims 35-37, 40, 45-47, 50, 55-57, and 60 as being dependent upon a rejected base claim, but indicated that they would be allowable if rewritten in independent form. Applicant thanks the Examiner for the indication of allowable subject matter and the proposed amendment.

While Applicant agrees with the Examiner that these claims are allowable, Applicant respectfully declines to amend claims 35-37, 40, 45-47, 50, 55-57, and 60 as proposed by the Examiner, on the basis that the independent claims 31, 41, and 51, upon which they depend, are themselves allowable.

Claim Rejections - 35 U.S.C. § 102

The Examiner rejected claims 31-34, 38-39, 41-44, 48-49, 51-54, and 58-59 under 35 U.S.C. § 102(b) over Eilts (U.S. Patent 6,393,073).

The rejection is traversed; however, Applicant amends claims 31-34, 38-39, 41, 43, 44, 48-49, 51-53, and 58-59 to expedite prosecution, and without prejudice with regard to pursuing the claims as previously presented or in other forms in a continuation or other application. Amended claim 31 recites a method of compensating for frequency offset in a received signal, comprising:

constructing a reference signal comprising a training sequence of the received signal and one or more basis functions;

minimizing a cost function associated with the reference signal, wherein the cost function comprises the training sequence, the one or more basis functions, and the received signal; and

acquiring a desired frequency-shifted signal when the cost function indicates a predetermined degree of correlation between the reference signal and the received signal.

Eilts was cited against Applicant's corresponding European patent (now issued as EP 1 716 683) and identified in an Information Disclosure Statement (IDS) filed by Applicant on August 22, 2008. Eilts is directed to a system having multiple antennas, wherein weighting coefficients are determined for specific components of a composite of signals received by the antennas (col. 4, lines 28-54). The weighting coefficients of Eilts are selected according to a training sequence and a least squares algorithm (col. 4, lines 55-67).

In rejecting claim 31, the Examiner appears to suggest that the weighting coefficients of Eilts disclose the basis functions recited by claim 31. Applicant respectfully disagrees. Eilts' system is similar to that disclosed in Applicant's Background at paragraphs 0001-0007 of the published application. These conventional systems provide a low correlation between the training sequence and the beamformer output from the antennas if there is a significant frequency offset (paragraph 0008 of the published application). Claim 31 recites, in part, a method of compensating for frequency offset in a received signal by *constructing a reference signal comprising a training sequence of the received signal and one or more basis functions*.

According to Eilts, "The effect of the multiplication by the weighted coefficients is to adjust the amplitude and phase of each receiver output stream before it is summed into an output signal" (col. 4, lines 38-41). The output signal is the actual signal that is received by the antenna (col. 2, lines 1-5), rather than a reference signal. In contrast, claim 31 recites, in part, *acquiring a desired frequency-shifted signal when the cost function indicates a predetermined degree of correlation between the reference signal and the received signal*.

Accordingly, Eilts fails to disclose the basis functions recited by claim 31.

Claims 41 and 51 are believed to be allowable for at least some of the reasons provided above with respect to claim 31. As claims 32-34, 38-39, 43, 44, 48-49, 52, 53 and 58-59 depend from claim 31, 41, or 51, they are believed to be patentable over the art for at least the foregoing reasons, as well as for the further novel features recited

respectively therein. Accordingly, withdrawal of the rejection of claims 31-34, 38-39, 41, 43, 44, 48-49, 51-53, and 58-59 is respectfully requested.

Any statements made by Examiner that are not addressed by Applicants do not necessarily constitute agreement by the Applicants. In some cases, Applicants may have amended or argued the allowability of independent claims thereby obviating grounds for rejection of the dependent claims.

New Claims

Applicant adds new claims 61 and 62 for consideration. No new matter is added.

Conclusion

For the foregoing reasons, the Applicant requests reconsideration and allowance of all pending claims. The Examiner is encouraged to telephone the undersigned if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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A handwritten signature in cursive script, reading "Bryan Kirkpatrick".

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